

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claim of Priority

Please see the enclosed Request for Acknowledgment of Receipt of Priority Document, together with Form PCT/IB/304.

Amendment to the Title

The title has been amended in the manner suggested by the Examiner.

Objection to the Abstract

The abstract has been amended in accordance with the Examiner's request.

Claim Amendments

Claim 1 has been amended to recite when ion-exchange water is added to the easily dispersible cake to provide an aqueous dispersion of the silica with a concentration of 5% by weight, said dispersion being stirred with a propeller mixer to affect a preliminary dispersion, a resultant slurry being treated to be dispersed with a high-pressure homogenizer once at a processing pressure of 78 MPa, and further being diluted to reduce the silica concentration to 1.5% by weight, a resultant dispersion has a light-scattering index of at least 2. Support for these amendments are set forth on page 6, lines 11-18 and page 22, lines 24-30 of Applicants' specification.

Withdrawn claim 3 has been amended to depend from claim 1, in order to properly retain the right to rejoinder. Withdrawn claims 3 and 4 have also been amended to make editorial changes, in order to better comply with U.S. practice.

No new matter has been added to the application by these amendments.

Patentability Arguments

The patentability of the present invention over the disclosure of the reference relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Rejection Under 35 U.S.C. § 102(a)

The rejection of claims 1 and 2 under 35 U.S.C. § 102(a) as being anticipated by Kono et al. (U.S. 6,417,264) is respectfully traversed.

The Position of the Examiner

The Examiner takes the position that Kono et al. disclose an easily dispersible precipitated silica cake which is characterized by a BET specific surface area of 280 m²/g and when it is dispersed in ion-exchange water to provide an aqueous dispersion of silica of 5% by weight in concentration, and further diluted to reduce the silica concentration of 1.5% by weight, the dispersion having a light-scattering index of at least 2.

Applicants' Arguments

The easily dispersible cake of precipitated silica of Applicants' invention is characterized in that, when ion-exchange water is added thereto to provide an aqueous dispersion of the silica with a concentration of 5% by weight, said dispersion being stirred with a propeller mixer to affect a preliminary dispersion, a resultant slurry being treated to be dispersed with a high-pressure homogenizer once at a processing pressure of 78 MPa, and further being diluted to reduce the silica concentration to 1.5% by weight, a resultant dispersion has a light-scattering index (n-value) of at least 2. Claim 1 has been amended accordingly. Thus, this silica cake has such good dispersibility, as to provide a

dispersion having a light-scattering index (n-value) of at least 2 even by only a single treatment with a high-pressure homogenizer.

On the contrary, Kono et al. disclose the following, in column 6, lines 39-41 and column 8, lines 31-59.

Obtaining a silica slurry (silica concentration of which is $(800 \times 15)/(800 + 200) = 12$ wt%) by adding 200 g of demineralized water to 800 g of dewatered cake (silica content: 15 wt%) when measuring light-scattering index (n-value);

Obtaining a preliminary mixture (silica concentration of which is $(800 \times 15)/(800 + 200 + 48) = 11.5$ wt%) by adding, to the above-obtained silica slurry, 48 g of diallyldimethylammonium chloride-acrylamide copolymer aqueous solution and mixing with a propeller mixer;

Obtaining a cationic polymer-modified silica dispersion by treating this preliminary mixture with a high-pressure homogenizer three times at a processing pressure of 800 kgf/cm^2 (78 MPa); and

Diluting this dispersion to have a silica concentration of 1.5% by weight, and measuring the same for light-scattering index (n-value).

Applicants claims require that the concentration of the silica prior to treating with a high-pressure homogenizer is 5% by weight. On the contrary, as explained above, the silica concentration of the preliminary mixture of Kono et al. prior to treatment with a high-pressure homogenizer is 11.5 wt%.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. (MPEP

2131) In this case, the reference clearly fails to describe Applicants' recited silica concentration prior to treatment with a high-pressure homogenizer. For this reason alone, the anticipation rejection is untenable and should be withdrawn. Additionally, due to the differences between the prior art and Applicants' presently claimed invention, the inventions cannot be accurately compared with one another.

Furthermore, treatment with a high-pressure homogenizer is performed three times in Kono et al., while it is performed only once in the presently claimed invention. Please note Applicants' amended claim 1, which recites a resultant slurry being treated to be dispersed with a high-pressure homogenizer once at a processing pressure of 78 MPa. Accordingly, the inventions are further distinct from one another. The easily dispersible cake of the presently claimed invention is characterized by having such good dispersibility, as to provide a dispersion having a light-scattering index (n-value) of at least 2 even by only a single treatment with a high-pressure homogenizer.

In Comparative Example 1 of the present specification (page 27, lines 12-25), a cake of precipitated silica is produced under the same condition as in Example 5 of Kono et al., although the process is described by slightly different expression. Hence, the cake of precipitated silica of Example 5 of Kono et al. corresponds to the cake which is obtained in Comparative Example 1 of the present specification. According to Comparative Example 1 of the present specification, a cake of precipitated silica which has undergone only a single treatment with a high-pressure homogenizer (as required by Applicants' claims) gives a dispersion having a light-scattering index (n-value) of 1.6. This light-scattering index which fails to satisfy Applicants' recited requirement of "light-scattering index (n-value) of at least 2". Thus, it is evident that the cake of precipitated silica, as obtained in Example 5 of Kono et al., (relied on by the Examiner) when measured for light-scattering index (n-value) under the condition as defined in the presently claimed invention, would fail to achieve the requirement of a "light-scattering index (n-value) of at least 2".

For these reasons, the invention of claims 1 and 2 is clearly patentable over Kono et al.

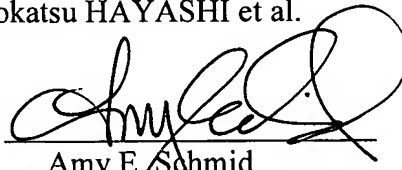
Conclusion

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of objection and rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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